

Facility: BrunswickDate of Examination: OCT 2014Exam Level: RO ☐SRO-I ☐**SRO-U** ☐Operating Test No.: DRAFTControl Room Systems[@] (8 for RO); (7 for SRO-I)

System / JPM Title	Type Code*	Safety Function
a. Start second Recirc Pump	S, P, A	1
b. Start HPCI with Exhaust Diaphragm failure	S, D, L, A	2
c. Emergency Equalize around MSIVs	S, P	3
d. SDC restoration with RHR overload	S, D, A, L, EN	4
e. (RO only) Terminate PC venting	S, D	5
f. Bus E3 Normal feeder to DG3, with DG Ground	S, D, A	6
g. Place RPS to Alternate	S,D	7
h. Perform PASS lineup	S, N	9

In-Plant Systems[@] (3 for RO/SRO-I)

i. SEP-09 with RB Accessible	R, D, E	2
j. Secure Condensate Pump IAW AOP-32 (Bkr Failure)	R, A, E, D	7
k. Place IA Dryer in Sweep Mode	R, N, E	8

[@] All RO and SRO-I control room (and in-plant) systems must be different and serve different safety functions; all 5 SRO-U systems must serve different safety functions; in-plant systems and functions may overlap those tested in the control room.

* Type Codes	Criteria for RO / SRO-I / SRO-U
(A)lternate path	4-6 / 4-6 / 2-3
(C)ontrol room	
(D)irect from bank	$\leq 9 / \leq 8 / \leq 4$
(E)mergency or abnormal in-plant	$\geq 1 / \geq 1 / \geq 1$
(EN)gineered safety feature	- / - / ≥ 1 (control room system)
(L)ow-Power / Shutdown	$\geq 1 / \geq 1 / \geq 1$
(N)ew or (M)odified from bank including 1(A)	$\geq 2 / \geq 2 / \geq 1$
(P)revious 2 exams	$\leq 3 / \leq 3 / \leq 2$ (randomly selected)
(R)CA	$\geq 1 / \geq 1 / \geq 1$
(S)imulator	

a. Recovery from Recirc System Runback

202001 A4.01

Ability to operate and/or monitor in the control room:
Recirculation Pumps

This is a previous exam (2012) simulator alternate path JPM that will have the examinees preparing to start the second recirc pump. When the pump is started and the discharge valve is being throttled open the only running pump will trip requiring a reactor manual scram. This JPM was randomly selected from the 2012 exam.

b. Start HPCI with Exhaust Diaphragm failure

206000 A3.09

Ability to monitor automatic operation of HPCI including response to system isolation

This is a banked JPM that will require the examinee to start HPCI for injection per the Hard Card and restore RPV water level. As an alternate path the exhaust diaphragm breaks and HCI does not auto isolate requiring manual isolation of HPCI.

c. Emergency Equalize around MSIVs

239001 A4.01

Ability to manually operate and or monitor in the Control Room:
MSIVs

This is a banked simulator JPM that will require the examinee to perform the control operator actions associated with emergency equalization around the MSIVs. This JPM was randomly selected from the 2010-2 exam.

d. SDC restoration with RHR valve overload

295021 AA1.04

Ability to manually operate Alternate Heat Removal Methods

This is a low power banked simulator JPM that will require the examinee to perform Alternate Shutdown Cooling IAW 0AOP-15.0. As an alternate path the RHR pump has on overload condition.

e. (RO only) Terminate PC venting

295024 EA1.19

Ability to operate/monitor Containment Atmosphere Control System as it applies to High Drywell Pressure

This is a banked simulator JPM that will require the examinee to terminate Primary Containment Venting, using SEP-01, Section 4.

f. Bus E3 Normal feeder to DG3, with DG Ground

264000 A4.04

Ability to manually operate and/or monitor in the control room Manual start, loading, and stopping of emergency generator.

This is a banked simulator JPM that will require the examinee to place E3 on the DG. This is an alternate path JPM in that an annunciator will alert the operator to remove the load from the DG.

g. Place RPS to Alternate

212000 A2.02

Ability to predict the impacts of RPS bus power supply failure on RPS System ; and (b) based on those predictions, use procedures to correct, control, or mitigate the consequences of those abnormal conditions or operations.

This is a banked simulator JPM that will require the examinee to transfer RPS alternate power to alternate.

h. Perform PASS lineup

295038 EA1.05

Ability to manually operate and/or monitor in the control room: Post Accident Sampling System (PASS).

This is a new simulator JPM that will require the examinee to lineup the Post Accident Sampling System for taking a sample.

i. SEP-09 with RB Accessible

295009 AA1.02

Ability to operate or monitor the CRD System as it applies to low reactor water level.

This is a banked in-plant JPM that will require the examinee to simulate performing SEP-09, CRD System flow maximization using two pumps and the reactor building accessible. This JPM is performed in the RCA.

j. Secure Condensate Pump IAW AOP-32 (Bkr Failure)

295016 AA1.06

Ability to operate and/or monitor the following as it they apply to Control Room Abandonment-Reactor Water Level.

This is a banked in-plant JPM that will require the examinee to simulate the actions associated with AOP-32. This JPM is alternate path in that the condensate pump does not trip requiring additional actions to trip the pump. This JPM is performed in the RCA.

k. Place IA Dryer in Sweep Mode

300000 A2.01

Ability to predict the impacts of Air Dryer and filter malfunctions on the Instrument Air System and based on those predictions, use procedures to correct, control, or mitigate the consequences of those abnormal operations.

This is a new in-plant JPM that will require the examinee to simulate setting the Service Air Dryer maximum sweep value to zero IAW 0AOP-20.0. This JPM is performed in the RCA.